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Umeyama et al.

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(54) MODEL FOR TRAINING OF SURGICAL OPERATION OF CATARACT

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(56) References Cited

U.S. PATENT DOCUMENTS

3,589,363 A	*	6/1971	Banko et al.	604/22
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4,919,151 A	*	4/1990	Grubbs et al 128/898
5,080,111 A	*	1/1992	Pallin 128/898
5,130,353 A	*	7/1992	Fischer et al 524/43
5,163,843 A	*	11/1992	Brenner 434/271
5,627,162 A	帧	5/1997	Gwon et al 514/54

OTHER PUBLICATIONS

Sugiura et al, Journal of Cataract & Refractive Surgery, "Creating cataract in a pig eye", vol. 25, No. 5, May 1999.* Wilder, Elizabeth, NCSU Chemical Engineering, Statistical Thermodynamics, "Polymer Gelation Due to the Self–Assembly of Dibenzylidene Sorbitol and Its Derivatives", Jun. 1999.*

Sugiura et al, Journal of Cataract & Refractive Surgery, "Creating cataract in a pig eye", vol. 25, No. 5, May 1999.*

* cited by examiner

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(57) ABSTRACT

The present invention relates to a model for surgical operation for an eye with cataract comprising a pig's eye which is prepared by injecting self hardening type chemicals into a crystalline lens capsule or into an empty crystalline lens capsule of said pig's eye, further relates to a model for an enucleating operation of a fallen nucleus lens which is prepared by falling the hardened chemicals into corpus vitreum by breaking posterior capsule of crystalline lens consciously.

10 Claims, 3 Drawing Sheets

